

**Syllabus MTH 2227
Spring 2018**

Time: MTWF 12:00 pm –12:50 am
Location: 130 McCall Hall (MSCX 130)
Instructor: Pat Rossi
Office: 227C MSCX (McCall Hall 227C); (334)670-3588; prossi@troy.edu
Office Hours: M, W, F 10:00-10:50; 1:00-1:50
T 9:00-11:50; 1:00-1:50
Or By Appointment

Text: Calculus with Analytic Geometry, 10th Edition, by Larson and Edwards Brooks/Cole – Cengage Learning). WebAssign License.

Calculation of Final Average

Test Average	60%
Homework	7.5%
Quizzes	7.5%
Final Exam	25%

Assignment of Final Grade

Final Average	Grade
90-100	A
80-89	B
70-79	C
60-69	D
0 -59	F

NOTE: Final Grades Cannot be Given Out Over The Phone

Final Exam: Our final exam will be given on **Thursday, May 3 from 2-4 pm**

Tests

Tests will be on Wednesdays (not necessarily every Wednesday) and will be announced one week in advance. They will cover material presented in class up to and including the Monday before the test. The quizzes will be on formulas coming from the “Formulas You Should Know” Handout that appears on my website. Tests and quizzes will be returned to the students (to keep) after they have been graded, but will remain the permanent property of the Instructor even after they are returned to the students.

Makeup Policy:

There will be no make-up tests given during the semester. Make-up tests will be given on Wednesday May 2 (Dead Day), at 10 am, **for those students who missed a test** during the term. **No student will be allowed to make up more than one missed test.** Notice that these make-up tests are only given to students who **missed a test** (for whatever reason) during the course. (This implies that you may choose to miss a test if you feel that you are not ready.) Don't do this indiscriminately - You may need to miss a test later on in the course, due to extreme illness, etc. Nevertheless, the option remains. One catch - once you enter the room to take an exam, you must take the exam. You will not be allowed to enter the room, look at the exam, and then decide whether or not you want to take the exam.

Attendance and Homework Policy:

More than six (6) unexcused absences will result in a grade of F.

Study and Preparation:

To increase your chances for success, do the assigned homework when it's assigned and ask questions either in class or during office hours on exercises that you find difficult. To a great extent, your conscientiousness in this matter will determine your success in the course. Practice tests, along with solutions, are posted on my website (<http://www.pat-rossi.com>). These practice tests are not an alternative to doing the assigned homework. Rather, for those who have done the homework assignments conscientiously, the practice tests provide an excellent way to prepare for the tests and the final exam. To get to my website:

1. Go to: <http://www.pat-rossi.com>
2. On the left hand side, click "Academic Links for Troy University Students"
3. Under "Course Links" click "MTH 2227"

AMERICANS WITH DISABILITIES ACT:

Troy University, under the guidelines of ADA and the Rehabilitation Act, makes reasonable accommodations for documented physical and mental limitations of otherwise-qualified individuals with disabilities. To provide the best possible services to students, employees, and visitors, Troy University has designated Disability Services Coordinators and Human Resources representatives on each campus as responsible parties for coordinating accommodations for persons with disabilities. For more information about physical access to building or grounds, academic or workplace accommodations, or other ADA related services, individuals should contact a Disability Services Coordinator or Human Resources representative on their campus of attendance. Specific information regarding the ADA, including contact information for responsible parties, can be found at the following link:

<http://trojan.troy.edu/employees/humanresources/documents/ADAPolicy2003.htm>

Academic Honesty

Academic misconduct shall be handled according to the guidelines listed in the *Oracle*.

Incomplete Policy

A grade of “I” (incomplete) may be given in the case of illness or emergency situations occurring towards the end of the semester, which make it impossible for the student to complete all course work by the end of the semester in such a way that the student’s grade accurately reflects his or her mastery of the course material up to the time of the illness or emergency. Such grades are given very sparingly, and only in a case of genuine hardship. Time limits for removing an incomplete can be found in the Undergraduate Bulletin. Also, the student must initiate the Incomplete process, by requesting a grade of incomplete from his/her instructor.

Course Description:

Topics include vector functions, multi-variable functions, partial derivatives and their applications, quadric surfaces, multiple integrals, and vector calculus, including Green’s theorem, curl, divergence, surface integrals, and Stoke’s theorem. Prerequisite: MTH 1126

Other Matters: Behavior such as wearing headphones in class, sleeping in class, exiting class during a lecture, talking to classmates during the lecture, reading a newspaper during class time, reading a book other than the assigned text for the course during class time, or doing work not assigned in this class during class time will not be tolerated. (If you are sick, or need to use the restroom, raise your hand and ask to be excused.)

Cell Phones and Other Electronic Devices

Troy University no longer has a cell phone policy. This means that I will not prohibit students from having a cell phone, tablet, etc. on their desk, except while tests are being given. I do not like for students to have such devices in plain sight and to be engaged in their use during my lectures - it’s discourteous and it’s a distraction to the person who has the device and to others around him/her. Considering how much students pay for each credit hour of instruction, being engaged in using such devices during class time also wastes money that students pay for tuition. But, since there is no longer any University policy regarding the use of such devices in the instructional environment, there is not much that I can do to prohibit their use (except during tests). While taking tests, neither calculators nor cell phones, tablets, etc. will be allowed on your desk and/or in your work environment. Particularly, the use of a communication device to violate the Troy University *Standards of Conduct* will result in appropriate disciplinary action (See the *Oracle*.)

It would be a courtesy for students who are expecting an emergency call to inform me before the start of class. Students receiving calls that they believe to be emergency calls should answer quietly without disturbing the teaching environment. If the call is an emergency, they should move unobtrusively and quietly from the instructional area.

Letters of Recommendation: I will gladly write letters of recommendation for students who receive a “B” or higher in the course, who have reasonably good attendance, and who do not cause discipline problems; provided that the letters are for graduate/professional school and/or employment in a field related to your academic major. Letters of recommendation for employment must be for positions that will be filled in the near future. (e.g., don’t ask me to write a letter of recommendation for a teaching position, when your date of graduation is over a year away.) Such letters are *confidential*. Also, if you want me to write a letter of recommendation, you must ask me *personally*. (i.e., do not put a note in my mailbox asking me for a letter of recommendation.) Oh - one more thing - the better I know you, the more I will be able to say about you in my letters of recommendation. *Therefore, it is to your advantage to come and see me, and ask for help during office hours.* This is how I get to know my students.

COURSE CONTENT

- I. Vectors and analytic geometry in three dimensions
 1. Vectors in two dimensions
 2. Rectangular coordinate system in three dimensions
 3. Vectors in three dimensions
 4. Geometric aspect of vectors
 5. Lines in space
 6. Planes
 7. Vector product
 8. cylinders and surfaces
 9. space curves
 10. Cylindrical and spherical coordinate systems
- II. Vector-valued functions
 1. Definitions
 2. Motion in space
 3. Calculus of vector-valued functions
 4. Curvature
 5. Tangential and normal components of acceleration
- III. Partial differentiation
 1. Functions of several variables
 2. Limits and continuity
 3. Partial derivatives
 4. Increments and differentials
 5. The chain rule
 6. Directional derivatives
 7. Tangent planes
 8. Extrema of functions of two variables
 9. Surface area
- IV. Multiple integrals
 1. Double integrals.
 2. Applications of double integrals
 3. Moments and center of mass
 4. Double integrals in polar coordinates
 5. Triple integrals
 6. Applications of triple integrals
 7. Surface area
- V. Topics in vector calculus
 1. Vector fields
 2. Line integrals
 3. Green's theorem
 4. Divergence and curl
 5. Surface integrals

Questions on Grading:

The instructor will entertain questions regarding grading of tests and assignments in his office, during office hours only. No questions regarding grading will be addressed during class.

Important Dates (Which Are Not Listed Elsewhere in the Syllabus)

Jan 15	Holiday – MLK Day – No Class
Jan 16	Last Day to Withdraw without financial penalty
Jan 16	Last Day to Add a Course (in person or on Web Express)
Jan 16	Last Day to Drop a Course without financial penalty (on Web Express Only)
Mar 12-18	Spring Break - No Classes
Mar 20	Last Day to Make Up Incompletes from Previous Semester
Apr 6	Last Day to File Intent to Graduate for Summer Semester
May 2	Dead Day

University Firearms Policy

Regardless and in spite of recent changes in Alabama law related to the matter, it remains the policy of Troy University that no person other than authorized law enforcement officers shall be permitted to bring any firearm onto any campus, teaching, or service support property, owned or leased by the University, no matter whether they hold a permit to do so, or not. It has been determined that it is the University's prerogative to establish its policy related to this question and therefore the current University policy on firearms remains in effect.

This syllabus represents a tentative plan for the instruction in this course. The instructor reserves the right to amend this syllabus if, in his opinion, such action will enhance and/or optimize learning. Any changes in this syllabus will be announced in class and/or on the instructor's website. This syllabus is a best possible assessment of the course aspirations, assignments and requirements at the time it was developed for this semester.